

# Differentiation of remuneration within a salary band: An endeavour to establish fairness, transparency and equitable remuneration using a 270° approach by a single-rater group

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## Abstract

*To ensure fairness, transparency and equitable remuneration at senior management level, a differentiated remuneration system for executives had to be developed and evaluated. The objectives of this study were to determine the reliability, utility and validity of a 270° job evaluation process and to differentiate between senior management positions within the same salary band.*

*The 270° job evaluation methodology was used in this study, which consisted of a rating by the senior managers' supervisors (executive managers) and peers and a self-rating. The evaluation method was validated against a rating by external consultants who made use of a methodology which was based on the Paterson job evaluation system. The raw score of this external rating was used, together with the conversion grade to the Peromnes system (the system used by the organisation).*

*Significant positive correlations were reported between the ratings of the supervisors (executive managers), the external job evaluation system and peer ratings. There was a negative correlation with the self-ratings.*

*Three distinct categories of senior management positions were determined. The methodology used (except in the self-ratings) yielded consistent results and could be used for differentiation purposes by a single rater group.*

*The 270° approach was found to differentiate fairly and transparently in relation to the inherent demands and consequently the relative worth and value of the senior management positions. This study was done in accordance with the requirements set out in the senior manager's psychological/employment contract, an essential aspect of good employment relations.*

**Key words:** *differentiation, executive remuneration, job evaluation, Peromnes job evaluation system, reliability*

## 1 Introduction

All remuneration decisions and practices must ensure fairness and transparency. This is especially true of the remuneration of senior managers, not only because of the

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monetary value, but also because these decisions impact on the remuneration structure of the lower levels in the organisation (Amos, Ristow, Ristow & Pearse 2008). Differentiation between senior management positions (in terms of a differentiated remuneration system) therefore needs to be based on a sound foundation and a validated system. Differentiation in remuneration is an important consideration in ensuring equal pay for work of equal value. However, Moloa and Rajah (2012:91) found that employees who are employed in similar positions (that require the same skills) are not compensated equally. Remuneration is therefore a discretionary concept that is not determined in the same way in all organisations. An employee's qualifications and years of experience are usually an indication of the employee's level of knowledge and skills (Moloa & Rajah 2012:92), and the organisation will therefore reward the employee accordingly. The employee in turn will seek better job opportunities that offer higher remuneration packages and incentives. The going rate in the labour market therefore becomes a key factor in determining the worth or value of a job (Moloa & Rajah 2012:92). It is therefore necessary that internal equity is achieved on the basis of the intrinsic value of each of the senior management positions and that rewards are appropriate in terms of the value of the contribution in relation to the contributions of others. DeNisi and Griffin (2008) found that job evaluation is concerned with establishing internal pay equality.

Job evaluation is defined as an assessment of the work involved in a specific position, the responsibilities attached to the position, and the skills, experience and qualifications required to succeed in the position, all with a view to determining the appropriate remuneration for the position and differentiating it from other work done in the organisation (BusinessDictionary.com). It helps management understand how different jobs relate to each other (Khurana, Khurana & Sharma 2009:52) and it is also used to put positions into categories and bring order into a pay structure. Job evaluation usually involves raters of some kind, that is consultants (external), job evaluation committees (internal) or HR specialists (Arthurs 2001), but in this study an elaborate approach (270°) will be implemented to determine relative worth or value.

The main purpose of the study is therefore to determine the utility of a 270° job evaluation methodology in differentiating between the senior management positions in the organisation.

This article is structured accordingly: First, the objectives of the study are provided, followed by a preliminary literature review. The research methodology is discussed, followed by the results and a discussion of the results. The article concludes with a discussion of the recommendations of the study.

## **2 Objectives of the study**

The rationale for the study was threefold: firstly, to determine the reliability and utility of a unique 270° job evaluation process utilised to differentiate between the senior management positions in an organisation; secondly, to determine the validity of the 270° job evaluation process by comparing it statistically with an independent, external job evaluation process; and thirdly, to differentiate between the senior management positions within the Peromnes P3 position grade (equivalent to the Paterson Classic E2 and E3 categories and the E Lower category of the Paterson–Modern system) based on predetermined factors/criteria, the so-called factor-comparison method (Erasmus, Swanepoel & Schenk 2008:490-492). It further intends to make recommendations in terms of this differentiation to ensure a fair and transparent process in decision making when a differentiated approach is adopted, as remuneration is an essential component of any employment relationship.

### 3 Theoretical background

The day-to-day dynamics of the commercial, industrial and economic domain of our society testify to numerous instances of individuals entering into psychological contracts and contracts of employment (Henrico & Smit 2010). The psychological contract (the unwritten expectations that employees and employers have about the nature of their work relationship (Grobler, Wärmich, Carrell, Elbert & Hatfield 2011:665)) and the contract of employment serve as the foundation of every employment relationship in the modern world (Grobler et al 2011; Henrico & Smit 2010; Nel, Kirsten, Swanepoel, Erasmus & Poisat 2012) and are usually entered into between the employer and the employee. For an employment contract to be valid, it needs to comply with certain requirements, namely (1) the parties must have contractual capacity, (2) performance of the contract must be possible, (3) the contract may not be against public moral values, (4) the contract must comply with the prescribed rules and regulations, and (5) the parties must intend to be bound by the contract (Nel et al 2012). The parties must therefore enter into the contract freely and voluntarily (The South African Labour Guide n.d.(a)) and be in agreement as to the nature and content of the contract. Because a contract of employment is a vital and binding document that regulates the employees' working conditions, it specifies what the employer will provide in terms of remuneration and benefits, company policy and labour legislation (The South African Labour Guide n.d.(b)). The Basic Conditions of Employment Act of 1997 furthermore requires the employer to provide minimum prescribed particulars (Venter 2008), such as what remuneration will be paid and how it will be calculated.

Payment of remuneration by employers is an essential aspect to the employment contract and courts will assume that where there is no remuneration agreement there is no contract of employment (Grogan 2009). It is important that employees are remunerated fairly without being discriminated against, and according to the requirements as set out in their psychological/employment contracts and their skills, knowledge and abilities; as well as in relation to other similar jobs in the organisation and the external environment (Amos et al 2008). Before remuneration can be paid, job evaluation needs to take place without bias and in accordance with adequate, valid and reliable methods (Nel et al 2012). Job evaluation is defined as "a formal and systematic comparison of jobs to determine the worth of one job relative to another" (Dessler 2009:230); or, according to Armstrong, Cummins, Hastings and Wood (2005:4), as a "systematic process of defining the relative worth or size of jobs within an organisation in order to establish internal relativities and provide the basis for designing an equitable grade and pay structure, grading jobs in the structure and managing relativities". It therefore determines the value of the job to the organisation and its primary purpose is to eliminate internal pay inequalities (Mondy 2012), since inequalities result in jealousy, sensitivity, mistrust and anger among workers that can lead to resentment between employees and management (El-Hajji 2011). This could affect the morale and initiative of the employees.

DeNisi and Griffin (2008) therefore found that job evaluation is mainly concerned with establishing internal pay equality, which refers in matters of compensation to "comparisons employees make to other employees within the same organisation" (Sims 2002:249). In other words, employees question whether they are being paid fairly/equitably for their contribution to the organisation, compared to other employees. The organisation has to ensure that there is a balance between the employees' input and output (El-Hajji 2011). This statement is confirmed by Armstrong (2007:113-116): each position has intrinsic value which is based on the employee's level of responsibility and the skills required to perform the job.

Job evaluation generally involves only one of a variety of raters, for example (1) consultants, (2) job evaluation committees or (3) human resource specialists (Arthurs 2001). In this study, job evaluation is based on a single measurement. It may be asked why such an inclusive approach (270°) was adopted, instead of a simple, once-off approach to determine the relative worth or value of jobs. Armstrong (2007:155) argues that any assessment of a position's total demands, relative to another, is always subjective to a certain extent and that therefore a more inclusive approach in assessment should be adopted. Fitz-enz (2010:175-176) emphasises that all human resource decision-making processes need to be evidence-based and dependent on systematic, consistent and quantifiable analysis, which must include all the relevant stakeholders involved (Erasmus et al 2008:118; Horwitz & Jain 2008:100), especially when remuneration levels are determined. Adherence to grading rules will enhance the credibility of the process. A systematic, consistent and inclusive (open) approach was adopted in this study, which consisted of five phases: (1) evaluation of the positions by the executive managers (who are the superiors of the senior managers) based on a set of seven dimensions and a defined scoring scale, and a thorough briefing and monitoring by the HR specialists; (2) a self-evaluation by the incumbents of their own senior management positions; (3) a peer rating; (4) an evaluation of the positions by external consultants—job evaluation, and (5) statistical analysis and validation of the process.

The organisation's grading system (Peromnes) clusters all senior management positions on Peromnes level 3, which is defined as "top management and very senior specialists". Peromnes—which means *for all*—has its roots in the Castellion job evaluation method which was developed for South African Breweries by Simon Biesheuvel. Peromnes is in essence a simplification of the Castellion method and is widely used (in about 600 organisations) and is solely marketed and supported by Deloitte and Touche Human Capital Corporation (Pty) Ltd, the copyholders. Peromnes, as used by the organisation in this study, has eight factors, namely (1) problem-solving, (2) consequence of judgement, (3) pressure of work, (4) knowledge, (5) job impact (combined internal and external impact scores), (6) comprehension, (7) qualifications and (8) experience. The factors used in the job evaluation process are referred to as compensable factors. This means that the employer pays jobs according to "how much" of these compensable factors are present in each job (WorldatWork 2007:213). The system has 18 position levels (P1 to P18), but has a total of 21 if the higher level official grade (P1), which has a range of three grades within itself, is included (Erasmus et al 2008:497). All the senior management positions have been placed on a common grade, without any differentiation between their internal value and the remuneration of the incumbents.

Positions within a specific grade (in this case the senior management positions, all on the same Peromnes grade) could be differentiated in terms of remuneration in two ways: firstly, by means of position-specific evaluation, resulting in individual rates for each position, based on its intrinsic value. This approach is broadly similar to "spot rates", which are not based on systematic job evaluation methodology, but on management's intuition. The similarity lies in the fact that each position has its own value and is remunerated accordingly. This is the most flexible system, but it may result in serious inequities that may be difficult to justify, especially in a large and complex organisation (Armstrong 2007:292). The second way of differentiating between positions is to adopt a more conservative approach, dividing the current band into zones or categories (Armstrong 2007:280). This approach was adopted for this study, and it was supported by the Remuneration Committee of the organisation after a preliminary report on the methodology had been presented to the committee.

## **4 Methodology**

### **4.1 Research design**

A survey design method (peer rating and self-rating) was combined with a structured interview (independent, external job evaluation) and interviews with a focus group (executive managers). In job evaluation terminology the design is explained as a combination of: (1) the analytical approach, using a combination of the point factor (Peromnes) (Erasmus et al 2008:488) and factor comparison; (2) the non-analytical approach (Armstrong 2007:171), specific job ranking (with peer evaluation as well as two dimensions assessed by the executive managers) and (3) market pricing (one dimension used by the executive managers).

This design allows for the description of the population at a specific time and is suited to the development and validation of processes (Saunders, Lewis & Thornhill 2007:138-139). In this study the process of differentiation between senior management positions in the organisation is based on the use of an inclusive approach (270°). According to Johnson and Christensen (2010:143), the most direct and relevant approach to determining the reliability of ratings (or in this instance a rating system/process) is to determine the degree of agreement between the assessments of two or more raters. The validation of the process is based on the consistency of an agreement between the results of the individual ratings or the collective rating of the process (internal measurement) and the external measure (Atkins & Wood 2002:872).

Three sets of organisational information, referred to as accumulated records, were also used in the study, namely departmental size, operational budget and linkages with the Institutional Operational Plan. This is considered to be an objective data collection source. With this research design, an effort was made to ensure that the job evaluation criteria were met. The criteria were that the design should be analytical, thorough in analysis and capable of impartial application, appropriate, comprehensive, transparent and non-discriminatory. The design is highly structured and it facilitates replication and quantifiable observations that lend themselves to statistical analysis.

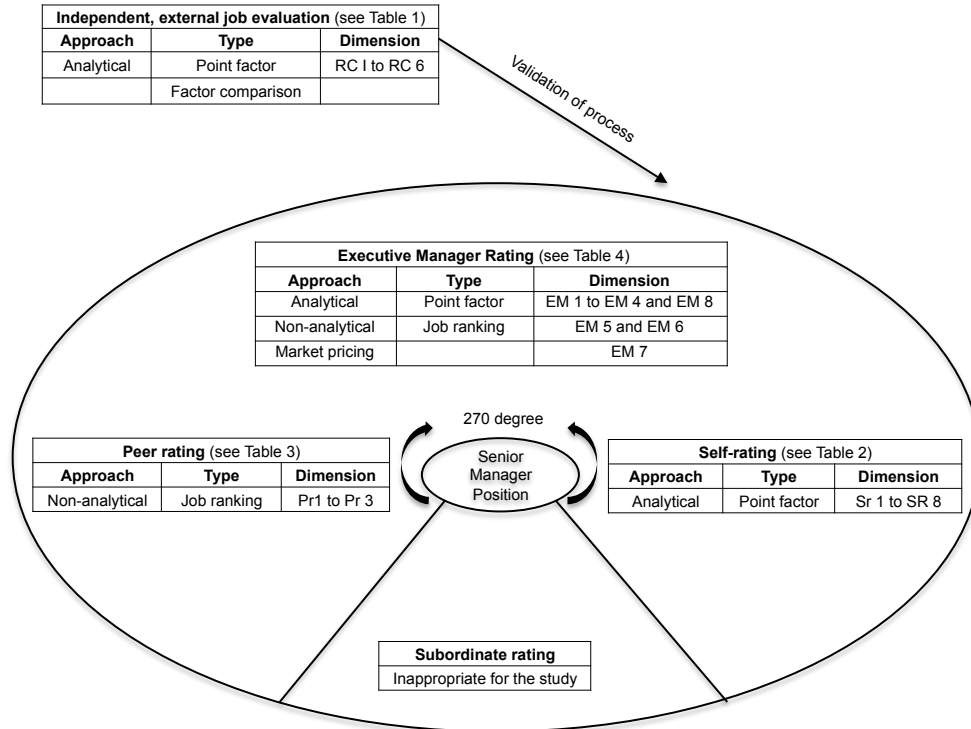
### **4.2 Study population**

The population (*N*) consisted of 24 senior management positions in the organisation. A management decision was taken to treat 5 highly homogeneous specialised positions as a cluster group (CHSG).

### **4.3 Measuring instruments**

In order to determine the possibility of differentiation between the senior management positions, the following instruments were used as part of the 270° approach (the 360° process is derived from the geometric rationale for multi-rater assessment, consisting of ratings by a supervisor, the subject himself/herself, a peer and a subordinate) (Coetzee & Schreuder 2010:349; Erasmus et al 2008:388). See Figure 1 for a depiction of the research design and the elements of the analysis.

**Figure 1**  
**Elements of the 270° approach**



#### 4.3.1 External, independent job evaluation

External consultants are used as job evaluation specialists partly for their expertise and partly because they are seen as impartial, thereby imparting a greater legitimacy to the process (Wright 2004:171). The external, independent job evaluation utilised in this study employed a methodology based on the Paterson job evaluation system (called *REMeasure*). This measuring instrument uses seven factors to measure or evaluate a position, which is in essence an analytical system, based on a point-factor method. The factors consist of a preliminary factor, which allocates a guideline Paterson band to the job. The preliminary factor has two primary functions. Firstly, it limits the range of answers for the subsequent questions to the guideline band and the levels below and above this band. Secondly, it determines the weighting of the factors. Once the preliminary factor questions have been completed, the system requires the user to complete the subsequent questions for the following factors as determined by the band allocated in the preliminary result. The factors measured with this analysis are reported in Table 1.

#### 4.3.2 Self-rating

In order to determine the self-perceptions of the senior managers regarding their job impact and the requirements of their jobs, a self-rating questionnaire, namely *Evaluation of job impact and job requirements*, was compiled. It consists of 8 subscales and 34 items. This is an ordinal scale and items are scored from 1 to 5. Table 2 is a summary of the dimensions and the number of items.

**Table 1**  
**Independent, external job evaluation dimensions**

Code	Dimension	Definition
RC1	Qualifications, knowledge and skills	The minimum educational qualifications, knowledge and skills required of a competent incumbent for entry to the job.
RC2	Experience and training	The typical period and extent of further training or experience required to achieve competence in the job by the quickest reasonable route after the minimum educational level assessed by RC1.
RC3	Problem solving	The complexity of problems in the job, determined by examining the clues or information and the alternative solutions that can be applied.
RC4	Communication	The level of understanding of spoken and written communication required in the job.
RC5	Financial impact (organisational/accumulated organisational records)	The consequence of judgements and decisions on the financial status of the institution/department.
RC6	Influence	The extent to which the job's normal activities have an influence, internally as well as externally, on the organisation.

**Table 2**  
**Self-rating questionnaire dimensions**

Code	Dimension	Items (n)	Definition
SR1	Job impact	7	The influence or impact that the position has on the organisation, activities of parts of the organisation, and/or external to the organisation.
SR2	Knowledge	4	The necessity of a sound theoretical foundation (position-specific), and the application or internalisation thereof within a complex, interrelated working environment. This knowledge can be acquired through specific education/training/experience or any combination thereof.
SR3	Accountability	4	Level of responsibility and accountability for the administrative, ethical, financial and interpersonal processes and performance of the department/college, but importantly for areas of responsibility related to organisational performance and governance.
SR4	Problem solving	8	Taking prompt action to accomplish objectives; taking action to achieve goals beyond what is required; being proactive. Maintaining effectiveness when experiencing major changes in work tasks or the work; adjusting effectively to work within new work structures, processes, requirements or cultures.
SR5	Complexity of problems	1	The complexity of the position is assessed by examining the clues or information available to ensure operational effectiveness. The clues range from clear, visible and concrete clues to extremely abstract, indirect and vague ones, which necessitate higher order intellectual processes, such as conceptualisation and innovative deductions.
SR6	Decision making	8	Taking decisions by obtaining information and identifying key issues and relationships relevant to achieving a long-range goal or vision; committing to a course of action to accomplish a long-range goal or vision after developing alternatives based on logical assumptions, facts, available resources, constraints and organisational values.
SR7	Nearness/ closeness to strategic objectives	1	The impact the position has on the formulation and execution of the organisational strategy, with a possible indicator of the number of actions linked to the organisation's Institutional Operational Plan.
SR8	Scarce skills	1	Evaluated in terms of the position functioning in an area/department where scarcity is evident in most directorates/subunits.
	<b>Total number of items</b>	<b>34</b>	

The job evaluation process is largely subjective (Armstrong 2007:155) and studies have also indicated that self-ratings (Day, Schleicher, Unckless & Hiller 2002:394), specifically in the human resource environment, are generally significantly higher than the ratings of others (Atkins & Wood 2002:877; Beehr, Ivanitskaya, Hansen, Erofeev & Gudanowski 2001:777). A possible reason for this is the perceived value of the outcome of the process (Yammarino & Atwater 1993:233), in this case, better remuneration.

#### 4.3.3 Peer rating

To obtain a peer-rating score, a ranking scale was developed, which was converted into a rating. On this scale the senior management positions had to be ranked from 1 to 5, where 1 indicated the highest impact or the closest to the organisation's strategy. The three aspects that were evaluated are described in Table 3.

**Table 3**  
**Peer-rating questionnaire dimensions**

Code	Dimension	Definition
PR1	Impact on the academic sector, including students	Indicates the <b>five</b> senior management positions (in ranking order) that have the highest impact on the academic sector, including students.
PR2	Impact on the support sector of the organisation	Indicates the <b>five</b> senior management <b>positions</b> that have the highest impact on the organisation.
PR3	Closeness to strategy	Indicates the <b>five</b> senior management positions that are the closest to the delivery of the organisation's strategic objectives.

The rating is based on the number of entries (regardless of the position on the 5-point scale), as a single value. The rating actually indicates the number of peers who considered a specific senior position to be one of the top five based on the two kinds of impact and on closeness to strategy constructs. The peer rating was based on a non-analytical approach (Armstrong 2007:158), as the positions were compared and placed in a rank order (but only the first five positions on the specific dimension). The advantage of this type of measurement is that it is simple and can establish relativities (rank order) effectively. In order to limit subjective judgements, the standards (dimension definitions) were defined, and the number of dimensions was limited to three. In addition, the participants were requested to identify only the highest five positions on each of the dimensions, and not to rank all 24 positions, which is a more complex process. The dimensions measured should be limited to a few, as this allows focusing, and should be associated with the company's strategic concerns (Fitz-enz 2010:22).

#### 4.3.4 Focus group

The executive managers as a focus group scored the senior managers on seven dimensions on an anchored 5-point scale, with "5" reflecting the highest score and "1" the lowest on the dimension. Definitions of each of the dimensions were produced to guide evaluators (executive managers) and to ensure consistency of application (Armstrong 2007). Focus groups can be particularly useful for organisations with functionally diverse constituencies, such as a higher education institution (Armstrong 2007:185). The structural nature of the focus group also enhances standardisation and consistency of the measurement, across all the positions/broad constituencies. Jordan, Mills, Moyo, Keshav and Ndoziya (1992) report greater reliability in job grading when a group decision-making process is used, as long as the process is structured and well managed. The dimensions measured by the executive managers in the focus group are described in Table 4.



**Table 4**  
**Rating dimensions of executive managers (direct supervisors)**

Code	Dimension	Weight	Definition
EM1	Job impact	20%	The influence or impact that the position has on the organisation, activities of parts of the organisation, and/or external to the organisation.
EM2	Theoretical knowledge and application	15%	The necessity of a sound theoretical foundation (position-specific), and the application or internalisation thereof within a complex, interrelated working environment. This knowledge can be acquired through specific education/training/experience or any combination thereof.
EM3	Accountability	10%	Level of responsibility and accountability for the administrative, ethical, financial and interpersonal processes and performance of the department/college, but importantly for areas of responsibility related to organisational performance and governance.
EM4	Problem solving/decision making	5%	Taking prompt action to accomplish objectives; taking action to achieve goals beyond what is required; being proactive. Maintaining effectiveness when experiencing major changes in work tasks or the work, adjusting effectively to work within new work structures, processes, requirements or cultures.
EM5	Nearness/closeness to strategy	20%	The number of actions linked to the organisation's Institutional Operational Plan, ranging from 12 actions (to obtain a 5 on the scale) and 1–2 actions (to obtain a score of 1).
EM6	Departmental size	15%	Number of approved positions in the respective departments ranked and scored in accordance with a 5-point scale, with 5 being the largest and 1 the smallest department.
EM7	Market analysis	10%	The market rate analysis was conducted by collecting and comparing survey data for similar positions in industry—and was not limited to the higher education sector.
EM8	Scarcity	5%	Evaluated in terms of the position functioning in an area/department where scarcity is evident in most directorates/subunits.

The objective criteria used by the executive managers were: (1) departmental size, which was ranked from the smallest to the largest department and converted to a 5-point scale with “5” reflecting the largest department and “1” the smallest; and (2) market analysis in terms of the extrinsic value of the position (Armstrong 2007:227). This is one of the vital ingredients of an effective reward management strategy, especially in terms of the attraction and retention of personnel (Armstrong 2007:66).

The only component that was not included here, although it generally forms part of a 360° assessment, was the subordinates, as inclusion would not have been appropriate for this investigation (hence the 270° approach). Subordinates form part of a typical 360° assessment of performance, but in terms of determining the relative worth and value of a position (job evaluation), they were not included, as they are not seen as content experts in terms of the position that they report to—see Figure 1.

#### **4.4 Statistical analysis**

The statistical analysis was carried out with the aid of a statistical program, Statistica (version 11). Descriptive statistics (means, standard deviations, skewness and kurtosis) were used to analyse the data. This method is particularly informative and provides useful information about the population (Gray 2009:139; Hill & Lewicki 2006:17).

In order to categorise the cases, in this instance the senior management positions, quartiles were used, with the lower quartile (Q1) taken to be the median of the lower half of the data and the upper quartile the median of the upper half of the data (Hill & Lewicki 2006:698-699). The difference, in other words Q2 and Q3, is considered to be the interquartile range or midspread (Burdess 2010:15).

Pearson product-moment correlation coefficients were used to specify the relationships between the variables. Missing values were deleted casewise, which is the only way in which a true correlation can be determined (Hill & Lewicki 2006:23-24), as all correlations are obtained from the same set of observations. A cut-off point of 0.30 (medium effect) (Cohen 1988:30) was set for the practical significance of correlation coefficients.

## 5 Results

### 5.1 The external, independent job evaluation: REMeasure

Role profiles were developed by means of individual structured interviews and organisational information (departmental size and operational budget) for all the senior management positions. These final role profiles were used in the evaluation and the descriptive statistics are given in Table 5.

**Table 5**  
**Descriptive statistics for the external, independent job evaluation dimensions (RC1 to RC6)**

Variable	Descriptive statistics								
	N	Mean	Min	Max	Lower quartile	Upper quartile	Std dev.	Skewness	Kurtosis
RC1	20	25.58	22.80	27.60	24.60	26.40	1.37	-0.38	-0.51
RC2	20	22.40	19.80	24.60	20.40	23.40	1.79	-0.48	-1.33
RC3	20	23.25	21.00	24.00	22.50	24.00	1.33	-1.23	-0.53
RC4	20	25.72	23.40	27.60	24.60	27.60	1.53	0.38	-1.75
RC5	20	70.44	50.40	86.40	64.80	79.20	9.44	-0.45	-0.71
RC6	20	51.17	46.80	52.80	50.40	52.45	1.54	-1.27	1.79
<b>RC Total score</b>	<b>20</b>	<b>218.56</b>	<b>199.80</b>	<b>231.00</b>	<b>213.30</b>	<b>225.00</b>	<b>8.33</b>	<b>-0.68</b>	<b>-0.35</b>
<p>Where: RC1 = Qualifications, knowledge and skills  RC2 = Experience and training  RC3 = Problem solving  RC4 = Communication  RC5 = Financial impact  RC6 = Influence</p> <p>The skewness and kurtosis for the factors do not exceed the critical values of 2.00 and 7.00, respectively (Glynn &amp; Woodside 2009:81; West, Finch &amp; Curran 1995:74), which is an indication of a normal distribution of the data. The majority of the values for the factors on both the skewness and the kurtosis scales were negative values ranging between -1.27 and -0.38, which is an indication that the distribution has relatively few small values and tails off to the left. This negative skewness contributes to the relatively high mean scores but importantly for the rationale for this investigation, it isolated a small group of senior management positions that measured significantly below the mean score. A relatively high standard deviation was also reported (8.3), which is a further indication that differentiation is possible. The minimum score reported is 200, with a maximum of 231.</p> <p>In order to differentiate between groups of senior management positions, one can consider using the quartile cut-off scores as a benchmark. The lower quartile limit for the overall score reported by the external, independent job evaluation consultants was 213 and that of the upper quartile was 225.</p>									

## 5.2 Self-rating

The descriptive statistics for the self-rating dimensions are given in Table 6 below.

**Table 6**  
**Descriptive statistics of the self-rating dimensions (SR1 to SR8)**

Variable	Descriptive statistics								
	N	Mean	Min	Max	Lower quartile	Upper quartile	Std dev.	Skewness	Kurtosis
SR1	20	4.44	3.57	5.00	4.00	4.86	0.47	-0.39	-1.05
SR2	20	4.50	3.75	5.00	4.00	5.00	0.43	-0.19	-1.53
SR3	20	4.82	3.75	5.00	4.75	5.00	0.34	-2.48	5.88
SR4	20	4.12	3.25	5.00	3.63	4.50	0.60	-0.14	-1.27
SR5	20	4.57	4.00	5.00	4.00	5.00	0.51	-0.31	-2.12
SR6	20	4.08	3.13	5.00	3.63	4.75	0.63	-0.09	-1.34
SR7	20	4.48	1.00	5.00	4.00	5.00	0.93	-2.82	9.89
SR8	20	4.29	3.00	5.00	4.00	5.00	0.56	0.04	-0.33
<b>SR total score</b>	<b>20</b>	<b>35.29</b>	<b>27.14</b>	<b>39.25</b>	<b>33.63</b>	<b>37.36</b>	<b>2.66</b>	<b>-1.39</b>	<b>3.22</b>

Where: SR1 = Job impact  
 SR2 = Knowledge needed  
 SR3 = Accountability  
 SR4 = Problem solving  
 SR5 = Complexity of problems  
 SR6 = Decision making  
 SR7 = Nearness to strategic objectives  
 SR8 = Scarce skills

The number of senior incumbents who completed the self-evaluation questionnaire was 20, with relatively high mean scores, which is usually the case with self-reporting (Yammarino & Atwater 1993:231–235; Muchinsky 2006). The factors relating to accountability revealed a value that represents unacceptable skewness (-2.48), against a norm of 2. The self-rating on nearness to strategic objectives also reveals a very peaked distribution, taking into consideration the kurtosis value of 9.89. The skewness and kurtosis critical values are defined by West, Finch and Curran (1995:74) and Glynn and Woodside (2009:81) as 2.00 and 7.00, respectively. The total self-rating score meets the skewness and kurtosis norms, with values reported as -1.39 and 3.22, respectively. The descriptive statistics for the peer-rating dimensions are given in Table 7 below.

## 5.3 Peer-rating

**Table 7**  
**Descriptive statistics of peer-rating dimensions (PR1 to PR3)**

Variable	Descriptive statistics								
	N	Mean	Min	Max	Lower quartile	Upper quartile	Std dev.	Skewness	Kurtosis
PR1	20	4.25	0.00	14.00	1.00	7.00	4.47	0.90	-0.51
PR2	20	4.35	0.00	16.00	1.00	5.50	4.46	1.39	1.52
PR3	20	4.15	0.00	11.00	1.50	6.50	3.22	0.49	-0.56
<b>Overall PR</b>	<b>20</b>	<b>12.75</b>	<b>0.00</b>	<b>32.00</b>	<b>5.50</b>	<b>20.00</b>	<b>8.96</b>	<b>0.28</b>	<b>-0.71</b>

Where: PR1 = Peer rating (impact on the academic sector, including students)  
 PR2 = Peer rating (impact on the support sector of the organisation)  
 PR3 = Peer rating (closeness to strategy)

The number of senior incumbents who completed the peer position rating was 20, with skewness and kurtosis values for the factors that do not exceed the critical values of 2.00 and 7.00, respectively (Glynn & Woodside 2009:81; West, Finch & Curran 1995:74). This is an indication of a normal distribution of the data. Many of the senior management positions did not receive any rating from their peers, with 0 being the minimum on all the factors, and a relatively low mean and lower quartile limit (ranging from 1 to 1.5 for the factors and 5.5 for the overall peer rating score). A relatively high standard deviation was reported, and the significant difference between the lower quartile and upper quartile limits is also an indication that these scores could be used for possible differentiation.

#### 5.4 Executive managers' rating (direct supervisors)

The descriptive statistics of the evaluations of the senior incumbents by the executive managers on the predetermined dimensions are given in Table 8.

**Table 8**  
**Descriptive statistics of dimensions assessed by executive managers (direct supervisors) (EM1 to EM8)**

Variable	Descriptive statistics								
	Valid N	Mean	Min	Max	Lower quartile	Upper quartile	Std dev.	Skew-ness	Kurtosis
EM1 (R)	20	3.04	2.00	4.00	3.00	3.00	0.46	0.18	2.50
EM1 (S)	20	0.61	0.40	0.80	0.60	0.60	0.09	0.18	2.50
EM2 (R)	20	3.13	2.00	4.00	3.00	3.00	0.45	0.64	2.08
EM2 (S)	20	0.47	0.30	0.60	0.45	0.45	0.07	0.64	2.08
EM3 (R)	20	3.13	2.00	4.00	2.00	4.00	0.85	-0.25	-1.59
EM3 (S)	20	0.31	0.20	0.40	0.20	0.40	0.09	-0.25	-1.59
EM4 (R)	20	2.58	1.00	4.00	2.00	3.00	0.88	-0.69	-0.23
EM4 (S)	20	0.13	0.05	0.20	0.10	0.15	0.04	-0.69	-0.23
EM5 (R)	20	3.46	1.00	5.00	3.00	5.00	1.38	-0.39	-0.89
EM5 (S)	20	0.69	0.20	1.00	0.60	1.00	0.28	-0.39	-0.89
EM6 (R)	20	2.66	1.00	5.00	1.00	4.00	1.36	0.12	-1.29
EM6 (S)	20	0.40	0.15	0.75	0.15	0.60	0.20	0.12	-1.29
EM7 (R)	20	3.03	1.00	5.00	2.00	4.00	1.23	-0.38	-0.74
EM7 (S)	20	0.31	0.10	0.57	0.20	0.40	0.13	-0.12	-0.61
EM8 (R)	20	2.09	1.00	4.00	2.00	2.60	0.78	0.43	0.27
EM8 (S)	20	0.11	0.00	0.20	0.10	0.14	0.04	-0.25	1.22
<b>EM Total Score</b>	<b>20</b>	<b>3.03</b>	<b>1.80</b>	<b>3.95</b>	<b>2.43</b>	<b>3.65</b>	<b>0.66</b>	<b>-0.34</b>	<b>-1.02</b>

Where: EM1 = Job impact

EM2 = Theoretical knowledge and application

EM3 = Accountability

EM4 = Problem solving/decision making

EM5 = Nearness/closeness to strategy

EM6 = Departmental size

EM7 = Market analysis

EM8 = Scarcity considerations

(R) = Rating using the scale

(S) = Weighted score

The number of senior management positions evaluated was 20, which included the 5 CHSG and 19 senior support positions. The skewness and kurtosis for the factors do not exceed the critical values of 2.00 and 7.00, respectively, which is an indication of a normal distribution of the data (Glynn & Woodside 2009:81; West, Finch & Curran

1995:74). The minimum total score reported (on a 5-point scale) is 1.80, with a maximum of 3.95. The quartile cut-off scores could be used as a benchmark in order to differentiate between groups of senior managers, with 2.43 as the lower quartile limit for the overall executive managers' rating and 3.65 as the upper quartile..

## 5.5 Validation of processes

In order to validate the 270° job evaluation process, the three evaluation methods, namely the total scores of the executive managers, the total scores of the self-rating and the total scores of the peer rating, were correlated with the total scores obtained through the external, independent job evaluation system. Basic correlations were computed. The rationale for the calculation of correlations was to determine the consistency of the measurement across the three 270° job evaluation methods (inter-rater reliability) and the external, independent job evaluation system in terms of process validation. The results are reported in Table 9.

**Table 9**  
**Correlation matrix of outcomes of three 270° job evaluation methods,**  
**and external, independent job evaluation results**

Variable	Only correlations that are significant at $p < .05000$ are reported, $N=20$			
	EM total score	Overall PR	SR total score	RC total score
EM total score		0.50 $p=0.04$	-.41 $p=0.10$	0.81 $p=0.00$
Overall PR	0.50 $p=0.04$		-0.09 $p=0.74$	0.53 $p=0.03$
SR total score	-.41 $p=0.10$	-0.09 $p=0.74$		-0.49 $p=0.047$
RC total score	0.81 $p=0.00$	0.53 $p=0.03$	-0.49 $p=0.047$	

Where: EM = Executive manager

PR = Peer rating

SR = Self-rating

RC = External, independent job evaluation

The number of cases was 20 because one senior incumbent was not included in this analysis, as the position had not been evaluated by the executive managers, and missing values were deleted casewise.

The results shown in Table 9 represent only the correlation of the four ratings of the senior managers, excluding the core functional positions. The rationale for excluding the core functional positions was the decision of the executive managers' focus group to consider them as a group, and to standardise some of their ratings. They are, however, included both separately and as a collective group in the discussion that follows.

A highly significant positive relationship (0.81) was found between the total scores of the executive managers and those calculated by means of the external, independent job evaluation. A significant positive relationship (0.50) was found between the total score of the executive managers and the overall peer rating, and a significant positive relationship (0.53) was found between the ratings of the peers and those obtained through the external, independent job evaluation.

The implication is that the executive managers, peers and the external, independent job evaluation consultants evaluated the senior management positions in a similar way,

although different evaluation methods were used. Thus, the evaluations of the executive managers and/or the external, independent job evaluation can be used with confidence to place the senior management positions in a particular ranked position and remuneration category.

A significant negative relationship (-0.49) was found between the self-ratings of the senior incumbents and the evaluations of the external, independent job evaluation consultants. The relationship between the self-rating and that of the executive managers is also negative, but only at the level of practical significance (medium effect). The implication of this finding is that when people have to evaluate themselves they do not necessarily reflect the real picture, as they are subjectively involved. Their self-evaluations for job positions are therefore not valid measurements for job positions and remuneration decisions.

The results shown in Tables 5 to 9 indicate that the evaluations of the executive managers and/or the external, independent job evaluation can be used with confidence to place the senior managers in a particular ranked position and remuneration category as there is consistency in the measurements, and the evaluations are supported by peer ratings that complement the said ratings.

## **6 Outcome of the investigation**

The outcome of the investigation is reported on the basis of two measurements, namely the results of the executive managers' ratings and those of the external, independent job evaluation. The following tables include the information in a processed format, using one of these sets of information, or a combination of the two, as ranking criteria.

The senior management positions in the core functional environment are considered to be a homogeneous grouping, and are reported on as a collective. This is in line with the decision of the executive managers during the focus group session at which they conducted the initial differentiation.

It seems as if there are three distinct groups of senior management positions, with a lower group (falling within the first or lower quartile of the ratings), a medium group (falling into the second and third quartiles) and the group falling into the high category (fourth or upper quartile). The results are reported in accordance with this method of categorisation.

### **6.1 *Executive managers' ratings and the external, independent job evaluation ratings, as well as the combined results***

The combined results of the ratings of the executive managers and the external, independent job evaluation are reported in Table 10.

The results obtained by the external, independent job evaluation largely support the ratings of the executive managers. SM11, SM21, SM20 and SM10 were rated the lowest, ranging from 200 to 212. The upper category consisted of SM9 and 18. The CHSG showed a mean falling into the second/third quartiles, owing to the variance in their scores. The scores, as measured by the external, independent job evaluation for the CHSGs, ranged from 208 to 231, with a mean score of 222.

When the quartile positions were combined the results were as follows:

- i) Four (4) of the senior managers emerged in the lower quartile (Q1) and five (5) in the interquartile range (Q2/Q3).
- ii) Two (2) of the senior managers emerged in the upper quartile (Q4).

- iii) Eleven out of the 20 positions yielded consistent results in terms of their quartile positions.
- iv) The deviation of the remaining 9 positions, in terms of their quartile positions, was only 1 quartile (1 quartile higher/lower).

**Table 10**  
**Combined results of differentiation based on executive managers' ratings as well as external, independent job evaluation ratings**

Senior managers as a collective	EM quartile	RC quartile	Combined
SM11	Q1	Q1	Q1
SM21	NE	Q1	Q1
SM20	Q1	Q1	Q1
SM10	Q1	Q1	Q1
SM23	Q2/3	Q1	Q2
SM15	Q1	Q2/3	Q2
SM7	Q1	Q2/3	Q2
SM12	Q1	Q2/3	Q2
SM24	Q2/3	Q2/3	Q3
SM8	Q2/3	Q2/3	Q3
SM14	Q2/3	Q2/3	Q3
SM13	Q2/3	Q2/3	Q3
SM17	Q2/3	Q2/3	Q3
SM1	Q2/3	Q4	Q3
SM16	Q2/3	Q4	Q3
SM22	Q2/3	Q4	Q3
SM19	Q2/3	Q4	Q3
CHSG	Q4	Q2/3 <sup>#</sup>	Q3 <sup>#</sup>
SM9	Q4	NE	Q4
SM18	Q4	Q4	Q4

Where: NE = Not evaluated

Q1 = 25th percentile/lower quartile

Q2/Q3 = Interquartile range/midspread

Q4 = 75th percentile/upper quartile

<sup>#</sup> Variance in the "collective, homogeneous specialised group" (CHSG) resulted in its being included in the second/third quartile

## 7 Conclusion and recommendations

Differentiation of remuneration is necessary to ensure that employees are remunerated fairly without being discriminated against, and according to the requirements set out in their psychological/employment contracts, in relation to the inherent demands and consequently the relative worth and value of the position. This is an essential aspect of good employment relations.

It is for this reason that the objectives of this research were to determine the utility of a 270° job evaluation methodology when used to differentiate between the senior management positions in the organisation. The reliability of the process was assessed by determining the degree of agreement between the internal evaluation methodologies used and the external, independent measurement and determining whether these results differentiate between the positions. The 270° methodology that was used to differentiate between the senior management positions in the organisation is reliable and yielded consistent results, except in the case of self-rating, where a negative

relationship with the other measurements was reported. The three sets of objective data, namely executive managers' ratings, peer ratings and the external, independent job evaluation results, were able to identify three distinct categories or zones of senior management positions, namely a lower, midsread and upper category.

Based on the findings and conclusions of the study, the following recommendations can be made:

Firstly, the 270° methodology could be used to evaluate positions if a single rater group is used, as long as there is a structured and well-defined scoring system to guide the assessing team. In order for the human resource practitioner to design a compensation strategy, the type of organisation should also be taken into consideration, and the sector to which the organisation belongs (in this instance a management decision was taken regarding the homogeneous specialised group representing the core business of the organisation).

Secondly, the applicability and overall utilisation of this methodology should be tested on other levels within the organisation, for example at middle management level. The methodology should be further developed to include a multi-rater dimension.

Thirdly, other balancing and reliable measures should be incorporated into the self-rating process to counter the "halo effect", where the rater allows one aspect of an employee's performance to influence his/her decision/rating.

Fourthly, job evaluations should generally focus on a more inclusive group of evaluators and should go further than an interview with the job incumbent. This will ensure that the process is robust and credible.

Lastly, the perception of the senior managers regarding this inclusive process should be measured to determine its effectiveness in terms of the participation and inclusion of the various stakeholders in the process.

The concept of remuneration and job evaluation remains a challenging one that cannot be discussed in terms of a single theoretical perspective. Therefore, researchers should approach it from a broad perspective which involves an interdisciplinary background. It is recommended that differentiation should take place to ensure that the employees are remunerated fairly without being discriminated against, and according to the requirements set out in their psychological/employment contracts and their skills, knowledge and abilities, as well as in relation to other similar jobs in the organisation and the external environment.

In conclusion, the 270° approach was found to differentiate fairly and transparently in relation to the inherent demands and consequently the relative worth and value of the senior management positions. This study was done in accordance with the requirements set out in the senior manager's psychological/employment contract, an essential aspect of good employment relations.

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